ADDITIONAL SHEET

CCR#: 04-0256 **Rev:** — **Originator:** Danny Huang
Telephone: 301-925-0837 **Office:** 3014C
Title of Change: Release of Tomcat 4.1.24 Configuration Patch 01 to DAACs

This delivery contains patch "tomcat4.1.24_config_patch_v01.tar.gz" (checksum: 2383140739, Size: 7994), an update to the configuration of baselined Tomcat 4.1.24 COTS product at all sites. It contains fixes for the following NCRs:

NCR Number	Subsystem	Sev	State	Site	Description
ECSed40433	DPL	2	V	LaRC	server.xml file missing mode context info
ECSed40435	DPL	2	V	LaRC	Rel 7.00 DataPool WebAccess config needs to use global EVs

The patch is to be installed on the following machines:

Site	Host Name	Subsystem	Host Function
LPDAAC	e0dps01	DPL/HEG	Data Pool Web Server
GSFC	g0dps01	DPL/HEG	Data Pool Web Server
LaRC	l0dps01	DPL/HEG	Data Pool Web Server
NSIDC	n0dps01	DPL/HEG	Data Pool Web Server

The patch was tested successfully in the PVC. See test results below.

INSTALLATION INSTRUCTIONS for Tomcat 4.1.24 configuration patch 01

The following are the procedures to install Tomcat 4.1.24 configuration patch v01.

Prerequisites
1. Tomcat 4.1.24 on the target Data Pool SUN machines.
2. The delivery tar file, tomcat4.1.24_config_patch_v01.tar.gz, has been placed in a staging directory accessible by the Data Pool machine.
3. Access to Release 7.0 release notes, 914-TDA-276
4. Estimated installation Time: 15 minutes for a novice operator.

Uninstall Instructions

None

Installation Instructions

1. Logon to Data Pool machine as root
2. Back up the file:
   /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool/conf/server.xml

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3. Back up the directory:
 /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool/modjk_config_for_DPL
4. Stop Apache and Tomcat in TS2

> **# cd /etc/init.d ↵**

> **# ./tomcat4_datapool_OPS stop ↵**

> **# ./tomcat_datapool_TS2 stop ↵**

> **# ./apache_datapool_TS2 stop ↵**

Note: Apache and Tomcat will issue error messages if they were not running.

5. If tomcat 4 is operating with Apache in TS1, stop Apache and Tomcat in TS1 also:

> **# ./apache_datapool_TS1 stop ↵**

> **# ./tomcat_datapool_TS1 stop ↵**

6. If tomcat 4 is operating with Apache in OPS, stop Apache and Tomcat in OPS also:

> **# ./apache_datapool_OPS stop ↵**

> **# ./tomcat_datapool_OPS stop ↵**

7. Unpack the tar file into the Tomcat 4 home directory

> **# cd /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool ↵**

> **# cp *<stagingdir>*/tomcat4.1.24_config_patch_v01.tar.gz . ↵**

> **# gunzip –c tomcat4.1.24_config_patch_v01.tar.gz | tar xvf – ↵**

> It overwrites the server.xml file and modjk_config_for_DPL directory and all mod_jk.conf.*<site>_<port number>* files under this directory.

8. Ensure the access permissions of directory "conf" is **775**
 # ls –l ↵

9. Configure Tomcat 4.1.24 for use with the appropriate Apache:
 - If currently using the Apache in TS2 mode with Tomcat 4.1.24, execute steps 12 thru 18 in Section 15.4.**1** of 914-TDA-276
 - If currently using the Apache in TS1 mode with Tomcat 4.1.24, execute steps 13 thru 19 in Section 15.4.**2** of 914-TDA-276
 - If currently using the Apache in OPS mode with Tomcat 4.1.24, execute steps 13 thru 19 in Section 15.4.**3** of 914-TDA-276

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Custom Code Integration

None

Interrogation Checkout

None

Back-Out Instructions

Execute the following steps in case you need to remove this patch:

1. Stop the Tomcat 4 and the Apache that is using it

   # /etc/init.d/tomcat4_datapool_OPS stop ↵

   # /etc/init.d/apache_datapool_<MODE> stop ↵

2. Change directory to Tomcat 4 home

   # cd /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool ↵

3. Restore the directory modjk_config_for_DPL from backup.

4. Restore the file server.xml from backup.

5. Restore the mod_jk.conf file in directory /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool/conf/auto that was saved when executing the instruction in section 15.4.3 in 914-TDA-276.

6. Restart Apache and Tomcat 4

   # /etc/init.d/tomcat4_datapool_OPS start ↵

   # /etc/init.d/apache_datapool_<MODE> start ↵

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Test Procedures

The Test Procedures for Java and Web Services COTS (Sun) Data Pool will be used to test Tomcat 4.1.24 on the SUN.

Integration Plan and Test Procedure	
Tomcat 4.1.24 COTS Upgrade for Data Pool in Synergy IV	
Int Test Plan No.: C12500a	**Test Author:** Danny Huang

Title:	Tomcat 4.1.24 COTS Upgrade for Data Pool in Synergy IV
CapId / NCR:	C12500a
Objective:	Verify that the Tomcat 4.1.24 upgrade has been successfully implemented by: • Verifying that Tomcat 4.1.24 can be brought up and accessed from the baseline apache server. • Verifying that Tomcat 4.1.24 has compatibility with the other Java related products.

L4 ID	**Verif. Method**	**L4 Text**
N/A		

Ticket ID	Type	Criteria ID	Criteria Text
N/A	N/A	N/A	N/A

Test Input Data:	User input as specified in test procedures below.	

Data Set Name/Version	**Description**	**Location**
N/A		

Test Output:	Console output to user during testing as specified below.	

Data Set Name	**Description**	
N/A		
Test Configuration	f0dps01, OPS mode p2dps01, OPS mode	

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\multicolumn	Step-By-Step Procedures	
Step No.	**Input Action / Expected Results**	**Pass / Fail / Comments**
C12500 - 1	**TEST PROCEDURE 1** **Starting and Stopping apache 1.3.29/tomcat 4.1.24 Web Services**	
	Assumptions: • **Solaris 8 OS on a Sun machine** • **Correct directory structure.**	
	Pre-Conditions: • **Sun's jar binary is in path and points to jar using JRE 1.4.1** • **Both apache-1.3.29_datapool and tomcat-4.1.24_datapool have been brought up.**	
	Test Steps:	**p2dps01**
1	As root: Go to /etc/init.d and type the following: **# /etc/init.d/tomcat4_datapool_OPS start** **Wait about 10 seconds for tomcat to start up. From another shell cd to /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool/logs. Check tomcat_log for entries with current timestamp with no error messages.**	**Pass**
2	As root: Now start the Apache http server. This is done by typing: **# /etc/init.d/apache-1.3.29_datapool_<MODE> start** The following response is expected: httpd starting. It is necessary to check to see if Apache actually started. **# ps –ef | grep httpd | grep apache-1.3.29_datapool** It should have several similar returns as the following: /usr/ecs/<MODE>/COTS/apache-1.3.29_datapool/bin/httpd –d /usr/ecs/OPS/COTS/apache- /usr/ecs/<MODE>/COTS/apache-1.3.29_datapool/bin/httpd –d /usr/ecs/OPS/COTS/apache- /usr/ecs/<MODE>/COTS/apache-1.3.29_datapool/bin/httpd –d /usr/ecs/OPS/COTS/apache-	**Pass**
	Data Reduction and Analysis Steps: N/A	

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C12500 - 2	**TEST PROCEDURE 2** **Testing Java-Related Components**	
	Assumptions: Same as for Test Procedure 1 **Pre-Conditions:** • **Test Procedure 1 has been run and Apache and Tomcat are still running.** • **Tserv must be installed in /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool/webapps/tserv.** • **An Internet browser with network access to the machine running Apache and Tomcat.**	
	Test Steps:	**p2dps01**

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1	By default apache-1.3.29_datapool and tomcat-4.1.24_datapool use the following ports: httpd_port: 22000 If these settings were customized after installation, check /usr/ecs/<MODE>/COTS/apache-1.3.29_datapool/conf/httpd.conf and /usr/ecs/OPS/COTS/tomcat-4.1.24_datapool/conf/server.xml for current port numbers.	**Pass**

2	Open the web browser and open the following URL:
	http://<test_machine>.<domain>:<httpd_port>/tserv/
	Example: for machine name f3ins01 at domain hitc.com:
	http://p2dps01.pvc.ecs.nasa.gov.com:22000/tserv/
	Note: Slash after tserv is required!
	
	You should see a web page that displays the following:
	
	Please select from the following tests:
	   JDBC 2.0 and JConnect 5.5
	   JDOM 1 Beta 8
	   Velocity 1.2
	   JavaMail 1.2 and JAF 1.0.1
	[Execute][Reset]
		Pass

3	Select the first option, "**JDBC 2.0 and JConnect Test**" and then click the **execute** button. This should output the following: JDBC/JConnect Test Displaying the results of the following query: Select * from DsDdRequest RequestId Status Priority. Test completed! Ensure actual error message and expected error message are equal.	**Note: this test only can be done on EDF machine!** **This test was completed successfully on f0dps01**

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4	**Select** the JDOM 1 Beta 8 option and then click on the Execute button. This should print out all of the following: JDOM Test: Reading and parsing information... Successfully built a JDOM Document from file. This is the original document: Checkng JDBC2.0 and JConnect 5.5 Checking Jdom 1 beta8 Checking velocity This is the document with an inserted node: Checking JDBC2.0 and JConnect 5.5 Checking Jdom 1 beta8 Checking velocity This element was inserted using JDOM! Parse and XML modification successful! JDOM correctly installed. Merge successfully! Velocity library correctly installed.	**Pass**
5	Select the **Velocity 1.2** option and press the **execute** button. Then the following should be displayed: Velocity Test: This test is used to demonstrate functionality of the velocity jar file. This part of the document is all static while the below table merges information from memory with the Velocity Template Language: 1 Java 2 XML 3 J2EE 4 JavaMail 5 Tomcat If this is what has been displayed then hit the browser's back button and return to the main testing page.	**Pass**

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6	(Perform this step only if JAF and JavaMail were installed on this machine:) Now select the "JavaMail 1.2 and JAF 1.0" option and click the execute button. A form will be displayed that will allow you to send an email. Therefore you will need an email address to send a message to that you have access to so you can check to see if the mail actually arrived. Fill the form out as following: To: \<accessible email address\> Subj: Test Msg: Test Now click the "send" button. Then the following should be displayed: Created new session... Created new mime message... Mail successfully sent Now check the email account where it was sent to see if it actually arrived. It should have subject "Test" and a message body that just says "Test."		**Pass**
Data Reduction and Analysis Steps:			
N/A			

Test Results

Tomcat 4.1.24 was installed in the PVC on p2dps01 in early January, 2004.The test procedures in Section A.1 were successfully executed on this host on February 3, 2004, 2004. This version of Tomcat has also been exercised in the PVC over the past several weeks during the course of Synergy IV testing which has utilized the Data Pool Web Access GUI for ordering data and the HEG Front End for converting data via the HEG for Data Pool. Testing has been comprised of general system checkouts following custom code installations, regression testing, capability demos, stability runs, and fault recovery testing. Data types that have been handled have included L7, MODIS, ASTER, MISER, etc. The Tomcat Web Application Manager GUI was also successfully exercised. No problems were encountered and no NCRs were generated against Tomcat.

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